IN THE SPECIFICATION:

Page 1

Before line 1 of the specification, please insert the following new paragraph:

This application is a Divisional of co-pending Application No. 09/202,178, filed on February 10, 1999, the entire contents of which are hereby incorporated by reference and for which priority is claimed under 35 U.S.C. § 120; and this application claims priority of Application No. 9602287-6 filed in Sweden on June 10, 1996 and Application No. 9701014-4 filed in Sweden on March 19, 1997 under 35 U.S.C. § 119.

Please replace the paragraph at page 5, lines 13-21 with the following amended paragraph:

The above problem of providing specific, cost-efficient and therapeutically superior immunoglobulin preparations for the treatment and prevention of *H. pylori* has now been solved through the composition and methods according to the attached patent claims. The present inventors have now surprisingly shown, that highly specific and therapeutically efficient polyclonal and/or monoclonal immunoglobulin preparations can be provided through the immunization of an animal with an adhesin protein, specific for *H. pylori*. ~~Said adhesin protein is characterized already in the priority applications SE 9602287-6 and SE 9701014-4, which hereby are referred to in their entirety.~~ The invention will now be

described in closer detail with reference to the attached, non-limiting figures and examples.

Please replace the paragraph at page 5, lines 22-30 with the following amended paragraph:

One objective of the present invention was to further purify and characterize the *H. pylori* blood group antigen binding (BAB) adhesin to make possible the development of methods and materials for specific and selective diagnosing and treatment of *H. pylori* induced infections and related diseases and the development of said methods and materials. A further and equally important objective was to determine the DNA sequences of the genes involved in the expression of this protein. These objectives were fulfilled through the protein ~~specified in claim 1~~, the DNA ~~disclosed in claim 13 and 14~~ and the methods and materials specified herein ~~in the subsequent claims~~. The DNA sequences are ~~attached as Appendix 1 and 2~~ SEQ ID NOS: 1 and 2, disclosing the babA (SEQ ID NO:1) and babB (SEQ ID NO:2) sequences, respectively. The full protein ~~sequence is~~ sequences are disclosed in ~~Appendix 3~~ SEQ ID NOS: 3 and 4.

Please replace the paragraph at page 6, lines 18-19 with the following amended paragraph:

Fig. 4 shows receptor activity directed affinity tagging and protein purification of the BabA (SEQ ID NOS: 7 and 8) adhesin.

Please replace the paragraph at page 6, line 29 to Page 7, line 5 with the following amended paragraph:

The blood group antigen binding adhesin, BabA, has now been biochemically characterized and purified by a novel technique, receptor Activity Directed Affinity Tagging (Retagging). Two genes, babA and babB were found to code for two different but very similar proteins. The present invention thus comprises a novel blood group antigen binding adhesin ~~according to claim 1 and the subsequent claims~~. The DNA sequences are disclosed in ~~appendices 1~~ SEQ ID NO:1 (babA) and ~~2~~ SEQ ID NO:2 (babB). The protein sequences are ~~is~~ disclosed in ~~appendix 3~~ SEQ ID NOS: 3 and 4. The invention also includes any pharmaceutical composition comprising said adhesin protein and/or fractions thereof. Examples of such pharmaceutical compositions are for example medicaments for the prevention or treatment of *Helicobacter pylori* induced gastritis, gastric and duodenal ulcers and gastric adenocarcinoma. Optionally said pharmaceutical composition additionally encompasses pharmaceutically acceptable excipients.

Please replace the paragraph at page 9, lines 5-8 with the following amended paragraph:

This adhesin protein or immunologically effective fractions thereof are characterized in that the following amino acid sequence (SEQ ID NO:5) is included:

EDDGFYTSVGYQIGEAAQMV

or homologues thereof.

Please replace the paragraph at page 9, lines 9-12 with the following amended paragraph:

The following DNA sequence (SEQ ID NO:6) or homologues thereof is included in DNA for expression of said adhesin protein or fractions thereof:

5´- GAAGACGACGGCTTTTACACAAGCGTAGGCTATCAAATCGGT

GAAGCCGCTCAAATGGTA - 3´

Please replace the paragraph at page 19, lines 10-19 with the following amended paragraph:

Inhibition of *H. pylori* binding to ^{125}I-labeled Lewis b antigen by preparations is presented graphically, as a function of antibody concentration (mg/ml) in Fig. 6: 1 ml aliquots of *H. pylori* bacteria (A_{600}= OD 0.10) were pre-incubated with dilution series of antibody preparations, in 0.01-10 mg/ml for 2 hours in phosphate buffered saline (PBS), 0.5 % albumin, 0.05 % ~~Tween-20~~ Tween-20™. Then 500 ng of ^{125}I-labeled conjugate (i.e. an excess of receptor structure) was added and incubated for 30 minutes. After centrifugation, ^{125}I-activity in the bacterial pellet was measured by gamma scintillation counting. The Lewis b blood group antigen glycoconjugates used, i.e. semi-synthetic glycoproteins constructed

by the conjugation of purified fucosylated oligosaccharides to serum albumin were from IsoSep AB, Tullinge, Sweden.